

In the claims:

1. (Currently amended) A method of forming an array of focusing elements for use in a lithography system, said method comprising the steps of:

providing a master element that includes at least one diffractive pattern at a first location with respect to a target surface;

illuminating said master element to produce a first diffractive pattern on the target surface at said first location **by interfering first and third order diffracted beams from said master element**;

moving said master element with respect to said target surface to a second location with respect to the target surface; and

illuminating said master element to produce a second diffractive pattern on the target surface at said second location.

2. (Cancelled).

3. (Cancelled).

4. (Cancelled).

5. (Original) The method as claimed in claim 1, wherein step of illumination said master element to produce the first diffractive pattern on the target surface at said first location involves the use of a Dammann grating.

6. (Original) The method as claimed in claim 1, wherein said first diffractive pattern includes a Fresnel zone plate.

7. (Original) The method as claimed in claim 1, wherein said first diffractive pattern is an amplitude Fresnel zone plate.
8. (Original) The method as claimed in claim 1, wherein said first diffractive pattern is a phase Fresnel zone plate.
9. (Original) The method as claimed in claim 1, wherein said diffractive pattern is apodized.
10. (Original) The method as claimed in claim 1, wherein said master element includes at least four diffractive patterns.
11. (Original) The method as claimed in claim 1, wherein said step of illuminating said master element to produce a first diffractive pattern on the target surface includes the use of a faceting aperture multiplexing grating.
12. (Cancelled).
13. (Original) The method as claimed in claim 1, wherein said step of illuminating said master element to produce a first diffractive pattern on said target involves mutliplexing a pattern on said master element to at least two patterns on said target surface.
14. (Currently amended) A method of forming an array of focusing elements for use in a lithography system, said method comprising the steps of:
 - providing a master element that includes at least one diffractive pattern at a first location with respect to a target surface;
 - illuminating said master element to produce a first diffractive pattern on the target surface at said first location **by interfering first and third order diffracted beams from said master**

element, said first diffractive pattern providing a first set of at least one focusing element for the lithography system;

moving said master element with respect to said target surface to a second location with respect to the target surface; and

illuminating said master element to produce a second diffractive pattern on the target surface at said second location, said second diffractive pattern providing a second set of at least one focusing element for the lithography system.

15. (Cancelled).

16. (Cancelled).

17. (New) A method of forming an array of focusing elements for use in a lithography system, said method comprising the steps of:

providing a master element that includes at least one diffractive pattern at a first location with respect to a target surface;

illuminating said master element to produce a first diffractive pattern on the target surface at said first location by interfering an incident plane wave on said master element with a reference plane wave that is directed in a direction that is generally opposite that of said incident plane wave;

moving said master element with respect to said target surface to a second location with respect to the target surface; and

illuminating said master element to produce a second diffractive pattern on the target surface at said second location.

18. (New) The method as claimed in claim 17, wherein step of illumination said master element to produce the first diffractive pattern on the target surface at said first location involves the use of a Dammann grating.
19. (New) The method as claimed in claim 17, wherein said first diffractive pattern includes a Fresnel zone plate.
20. (New) The method as claimed in claim 17, wherein said first diffractive pattern is an amplitude Fresnel zone plate.
21. (New) The method as claimed in claim 17, wherein said first diffractive pattern is a phase Fresnel zone plate.
22. (New) The method as claimed in claim 17, wherein said diffractive pattern is apodized.
23. (New) The method as claimed in claim 17, wherein said master element includes at least four diffractive patterns.
24. (New) The method as claimed in claim 17, wherein said step of illuminating said master element to produce a first diffractive pattern on the target surface includes the use of a faceting aperture multiplexing grating.
25. (New) The method as claimed in claim 17, wherein said step of illuminating said master element to produce a first diffractive pattern on said target involves mutliplexing a pattern on said master element to at least two patterns on said target surface.